
Exploring the Adaptability of Pupil Teachers in Diverse Learning Contexts

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Abstract

Teachers with adaptability skills are better prepared to navigate the constantly evolving landscape of education. They can modify their teaching strategies to meet the needs of their students while keeping pace with new technologies and teaching methods. By embracing new concepts and learning from their mistakes, adaptable teachers can enhance their skills and better equip their students for success. Ultimately, adaptability is a valuable tool that enables teachers to stay ahead of the curve and provide the best possible education to their students. To study the adaptability of pupil teachers in diverse learning contexts, the present research was conducted. A survey method was employed to assess the levels of learning adaptability among pupil teachers from various teacher training institutions and colleges affiliated with H.N.B. Garhwal University in Srinagar, Uttarakhand. The study used a self-constructed "Learning Adaptability Scale" consisting of 18 items, each rated on a 10-point scale. The scale was categorised into three dimensions: learning management, learning efficacy, and learning difficulties. The findings of the study assist teacher educators in navigating the complexities and uncertainties inherent in the teaching profession.

Keywords: Learning Adaptability, Learning Management, Learning Efficacy, Learning Difficulty, Pupil Teachers, Teacher Training Programs.

Introduction

The education system usually evolves. It changes slowly on the demands of time and society. For the best development of teachers and learners, it does changes in teaching and learning practices according to the requirements of the time. With the changes in the education system, the role and work of teachers have also constantly changed. According to Collie and Martine (2016), educators must adapt to the diverse and evolving needs of their students, communicate with new coworkers and parents/caregivers effectively, proactively handle schedule changes and daily activity shifts, and incorporate new professional development or curricula into their teaching methods. This ability to respond effectively to new changes is crucial for fostering a healthy and efficient workplace for teachers. This ability to adapt or accept new challenges in teachers enhances their adaptability to work in unexpected events, classroom challenges, and makes them open to new technologies and methodologies. When teachers can navigate change seamlessly, it promotes better collaboration, improves student outcomes, and overall satisfaction within the school community. This skill or competency is termed adaptability and defined as the individual's ability to adjust their thinking, actions, and emotions in response to changing, new,

or uncertain situations (Martine *et al.*, 2012). Adaptability plays a crucial role in learning because it allows teachers and students to adjust to new situations, challenges, and information effectively. According to Collie and Martine (2017), learning adaptability refers to a learner's capacity to actively modify their approaches and behaviour in response to the various demands of the educational environment, including factors such as the curriculum, teaching methods, instructional tools, and available support systems. It is a crucial skill in today's world as it allows individuals to effectively cope with constantly changing circumstances. The American Psychological Association (APA) emphasises the importance of adaptability, defining it as "the ability to respond appropriately to altered or evolving situations; the skill to adjust one's behaviour when faced with various circumstances or different individuals" (Vanden, 2015). This definition highlights the value of adaptability in personal and professional contexts, encouraging individuals to develop the capacity to navigate diverse challenges and collaborate effectively with others.

In this study, the term learning adaptability is described as the ability of pupil teachers to adjust quickly to changing circumstances in teaching-learning and acquire new learning skills. Learning adaptability focuses on three factors in this research, namely learning management, learning efficiency, and learning difficulties. The first factor, learning management, refers to the systematic planning, execution, and evaluation of teaching-learning processes. That means to be able to manage their learning with the use of new technologies and learning materials, and regulating self-learning by promoting themselves to acquire new learning strategies and learning platforms without the help of another person. This attitude will help the learners to get ready to learn with or without any support. The second factor, learning efficiently means learning smartly. It helps in understanding things quickly, using less time and effort while remembering them well. It is about studying with focus, utilising effective learning techniques, and applying what you learn in real-life situations. The third factor, learning difficulty, helps individuals to continuously grow and develop, and it is highly valued in both personal and professional life. It is a valuable skill that empowers individuals to quickly adjust to changing circumstances and acquire new skills.

The modern education system is characterised by rapid changes, including the integration of digital learning tools, innovative teaching methodologies, and competency-based assessment models. Pupil teachers must develop adaptive learning strategies to cope with these shifts, ensuring their preparedness for the teaching profession. Adapting to different learning environments, including digital platforms, hybrid models, and self-paced study, requires emotional resilience, motivation, and self-regulation. This study tries to explore the ability of pupil teachers to manage learning stress and maintain motivation in changing academic settings. A teacher's ability to learn and adapt to new instructional strategies influences their classroom management, student engagement, and overall teaching effectiveness. Understanding pupil teachers' adaptability in learning will help identify gaps and design interventions to enhance their professional competence. In contrast, learners who lack adaptability often struggle to learn, as they are unable to adjust their learning strategies to meet the demands of different contexts.

Therefore, developing adaptability is crucial for learners who wish to succeed in their academic and professional pursuits. Research indicates that there are indirect relationships between adaptability and students' outcomes. Nan (2021) emphasised the importance of learning adaptability in the success of students. Many studies have demonstrated the significant impact that adaptability skills can have on students' academic performance, future educational choices, and mental well-being (Raza et al., 2021; Wang *et al.*, 2023; She *et al.*, 2023). These studies focused on understanding the role of adaptability in the learning process and found it crucial in developing effective interventions for successful learning in unfamiliar or uncertain academic environments. Numerous studies have specifically investigated how adaptability influences learners' self-regulated learning (Xu *et al.*, 2021; Guo, 2022; Feraco *et al.*, 2023). Adaptability is the most significant factor in explaining the variance in self-regulated learning when compared to online self-efficacy and sources of stress (Stan *et al.*, 2022). No study was conducted on the learning adaptability of learners, especially in the area of teacher education, which shows a major research gap in the context of teacher education. Pupil teachers represent a vital component of the future workforce in education, significantly contributing to the development and success of students in today's modern educational landscape. Their role is essential in shaping the next generation of learners. In this context, pupil teachers must have the skills to adapt to perform according to the needs and demands of the scenario.

Objectives of the Study

The study mainly focuses on knowing the learning adaptability among pupil teachers and compares the learning adaptability of pupil teachers on the basis of their gender, subject stream, residency, medium of language, and type of institution. The null hypotheses were framed to compare learning adaptability.

Research Methodology

A descriptive survey method was used to achieve its objectives. The population consisted of all pupil teachers enrolled in the teacher training institutions affiliated with HNB Garhwal University. A sample of 400 pupil teachers was randomly selected from the affiliated colleges/institutions of teacher training in the Srinagar and Dehradun districts of Uttarakhand. The data was collected using a self-constructed 'Learning Adaptability Scale' consisting of 18 items on a 10-point rating scale. Respondents were free to rate each statement from 1 to 10, with 1 being very low and 10 being very high. The scale was divided into three dimensions: learning management (6 items), learning efficacy (5 items), and learning difficulties (7 items). The scale reliability was found to be .814 using Cronbach's alpha, indicating high reliability. The data was analysed using t-tests.

Results and Findings

Table 1: Comparison of the Learning Adaptability of Male and Female Pupil Teachers

Learning Adaptability	Gender	N	Mean	S.D.	t	Sig. (2-tailed)
Learning management	Male	159	41.585	8.8527	0.493	NS
	Female	241	42.041	9.2113		
Learning Efficacy	Male	159	36.258	9.0128	0.292	NS
	Female	241	35.983	9.3296		
Learning Difficulty	Male	159	44.132	12.0595	0.007	NS
	Female	241	44.141	12.1438		
Overall Learning Adaptability	Male	159	199.818	38.0725	0.096	NS
	Female	241	200.191	38.1849		

Table 1 reveals the learning adaptability of male and female pupil-teachers on the various measures of learning adaptability, including learning management, learning efficacy, learning difficulty, and overall learning adaptability. A total of 159 male pupil teachers (Mean =41.585 and S.D. 8.8527) and 241 female pupil teachers (Mean = 42.041 and S.D. = 9.2113) showed no significant difference in terms of learning management ($t=0.493$). Both male (Mean=36.258 and S.D.=9.0128) and female (mean=36.258 and S.D.=9.0128) pupil teachers also revealed no significant difference in terms of learning efficacy ($t=0.292$). Moreover, there exists no significant difference between male (Mean = 44.132 and S.D. = 12.0595) and female (Mean = 44.141 and S.D. =12.1438) pupil teachers in terms of learning difficulty towards adaptability. Overall, there exists no significant difference ($t=0.096$) in terms of learning adaptability between the 159 male pupil teachers (Mean =199.818 and S.D. 38.0725) and 241 female pupil teachers (Mean =200.191 and S.D. 38.1849). Therefore, it was found that there is no significant difference in learning adaptability among pupil teachers based on their gender. It concluded that most pupil teachers have a similar level of learning adaptability(Fig.1). The findings of Raj & Kour (2017) support the findings of this study.

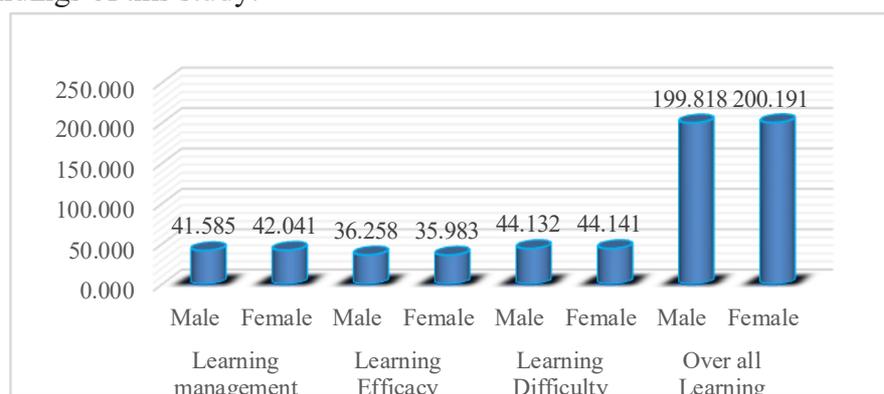


Fig. 1: Learning Adaptability of Male and Female Pupil Teachers

Table 2: Comparison of the Learning Adaptability of the Pupil Teachers from Art and Science Streams

Learning Adaptability	Subject Stream	N	Mean	S.D.	t	Sig. (2-tailed)
Learning management	Art	189	40.079	9.1581	3.781	S
	Science	211	43.455	8.6911		
Learning Efficacy	Art	189	34.73	10.2051	2.829	S
	Science	211	37.313	8.0141		
Learning Difficulty	Art	189	43.894	12.4238	0.38	NS
	Science	211	44.355	11.8185		
Overall Learning Adaptability	Art	189	193.513	38.8472	3.284	S
	Science	211	205.891	36.5143		

Table 2 depicts the learning adaptability of pupil teachers from art and science streams on the various measures of learning adaptability, including learning management, learning efficacy, learning difficulty, and overall learning adaptability. There were 189 pupil teachers from the art stream (Mean= 40.079 and S.D.= 9.1581) and 211 pupil teachers from the science stream (Mean= 43.455 and S.D.= 8.6911) who showed a significant difference in the learning management dimension of learning adaptability ($t=3.781$). It was found that pupil teachers from the science stream have better learning management than pupil teachers from the art stream. Additionally, there was a significant difference in learning efficacy ($t=2.829$) between arts stream pupil teachers (Mean= 34.730 and S.D.= 10.2051) and science stream pupil teachers (Mean= 37.313 and S.D.= 8.0141). It was indicated that pupil teachers from the science stream have better learning efficacy than pupil teachers from the art stream. Whereas, no significant difference was found ($t=.380$) between pupil teachers from the art stream (Mean= 43.894 and S.D.= 12.4238) and pupil teachers from the science stream (Mean= 44.355 and S.D.= 11.8185) for learning difficulty. Further, in the overall learning adaptability, there was a significant difference ($t=3.284$) found between pupil teachers from the art stream (Mean= 193.513 and S.D.= 38.8472) and pupil teachers from the science stream (Mean= 205.891 and S.D.= 36.5143). Pupil teachers from the science stream have better learning adaptability than pupil teachers from the art stream. Based on the table, it is clear that the t-ratio for overall learning adaptability and all dimensions of learning adaptability, except for learning difficulty, were found to be significant. Therefore, a notable difference was found in learning adaptability among pupil-teachers based on subject stream. The majority of arts and science stream pupil teachers had differences in their learning adaptability concerning their subject stream (Fig.2). The findings of Feist (1998), Furnham *et al.* (2011), and van Broekhoven, K(2020) support the findings of this study.

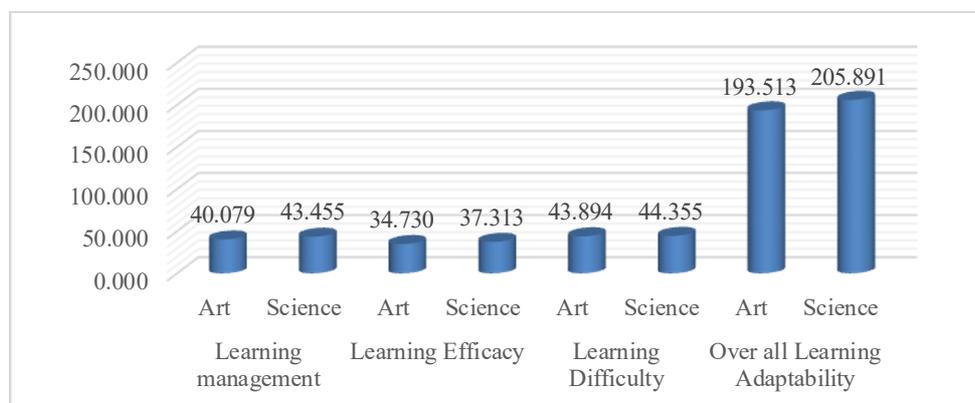


Fig. 2: Learning Adaptability of Arts and Science Stream's Pupil Teachers

Table 3: Learning Adaptability of the Pupil Teachers from Hindi and English Medium

Learning Adaptability	Language	N	Mean	S.D.	T	Sig. (2-tailed)
Learning management	Hindi	199	41.618	9.6763	0.531	NS
	English	201	42.1	8.4273		
Learning Efficacy	Hindi	199	35.186	9.8817	1.969	S
	English	201	36.99	8.3881		
Learning Difficulty	Hindi	199	44.814	12.4601	1.113	NS
	English	201	43.468	11.7154		
Overall Learning Adaptability	Hindi	199	198.422	40.4902	0.846	NS
	English	201	201.647	35.5897		

Table 3 depicts the learning adaptability of pupil teachers from Hindi and English medium on the various measures of learning adaptability, including learning management, learning efficacy, learning difficulty, and overall learning adaptability. There were 199 pupil teachers from the Hindi medium (Mean=41.618, and S.D.= 9.6763) and 201 pupil teachers from the English medium (Mean=42.100, and S.D.= 8.4273) who demonstrated an insignificant difference in the learning management dimension ($t=.531$) of learning adaptability. In the learning efficacy dimension ($t 1.969$), a significant difference was found between the Hindi medium (Mean =35.186, and S.D. 9.8817) and English medium (Mean = 36.990, and S.D. 8.3881) pupil teachers. It was found that pupil teachers from the English medium have better learning efficacy than pupil teachers from the Hindi medium. For the learning difficulty dimension of learning adaptability, pupil teachers from Hindi medium (Mean = 44.814, and S.D. 12.4601) and English medium (Mean =43.468, and S.D. 11.7154), reported no significant difference($t = 1.113$). Furthermore, in overall learning adaptability, no significant difference ($t = 0.846$) was found between the pupil teachers from the Hindi (Mean =198.422, and S.D.=40.4902) and English medium (Mean =201.647, and S.D. =35.5897). The t-ratio for overall learning adaptability and all dimensions of learning adaptability, except learning efficacy, was found to be insignificant. Hence, no significant difference was found in learning adaptability between pupil-teachers from

Hindi and English medium (Fig.3). The findings of Singh et al. (2012) support the findings of the study.

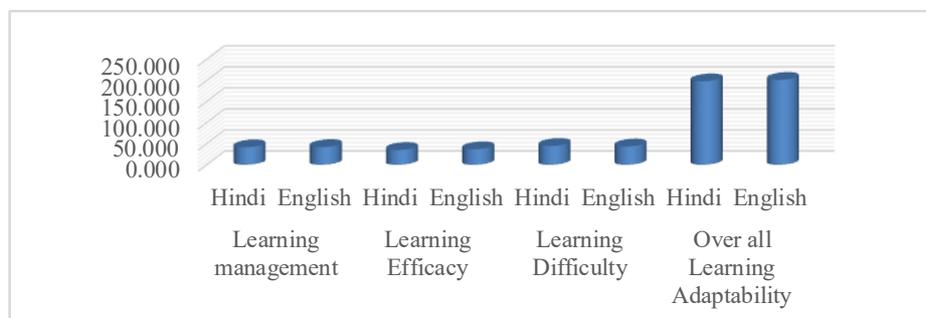


Fig. 3: Learning Adaptability of Hindi and English medium Pupil Teachers

Table 4: Learning Adaptability of the Pupil Teachers from Hill and Plain Residency

Learning Adaptability	Residency	N	Mean	S.D.	T	Sig. (2-tailed)
Learning management	Hill	185	43.07	8.7663	2.494	S
	Plain	215	40.819	9.2023		
Learning Efficacy	Hill	185	36.427	8.7747	0.675	NS
	Plain	215	35.805	9.5521		
Learning Difficulty	Hill	185	45.405	11.1644	1.952	S
	Plain	215	43.047	12.7674		
Overall Learning Adaptability	Hill	185	204.4	36.9799	2.132	S
	Plain	215	196.293	38.719		

Table 4 depicts the learning adaptability of pupil-teachers from the hill and plain residency on the various measures of learning adaptability, including learning management, learning efficacy, learning difficulty, and overall learning adaptability. The table revealed that for learning management, 185 pupil teachers from the hill residency (Mean = 43.070 and S.D. 8.7663) and 215 pupil teachers from plain residency (Mean 40.819 and S.D. 9.2023) indicated that the hill residency pupil teachers have significantly higher learning management compared to plain residency pupil teachers ($t = 2.494$). Similarly, for learning efficacy, no significant difference ($t = 0.675$) was found between the hill residency pupil teachers (Mean = 36.427 and S.D. = 8.7747) and the plain area pupil teachers (Mean = 35.805 and S.D. = 9.5521). For learning difficulty, between the hill residency pupil teachers (Mean = 45.405 and S.D. = 11.1644) and plain residency pupil teachers (Mean = 43.047 and S.D. = 12.767), the t-score ($t = 1.952$) indicated a marginally significant difference. It was found that pupil teachers from the hill residency faced more difficulties than pupil teachers from the plain residency. Finally, for overall learning adaptability, pupil teachers from hill residency (Mean = 204.400 and S.D. = 36.9799) and pupil teachers from plain residency (Mean = 196.293 and S.D. = 38.7190) showed significant differences ($t = 2.132$), which indicated that the pupil teachers from hill residency had significantly higher overall learning adaptability than the pupil teachers from plain residency. Hence, there exists a significant difference in learning adaptability among pupil-teachers based on residency (Fig.4). The findings of Om Prakash (2023) support the findings of this study.

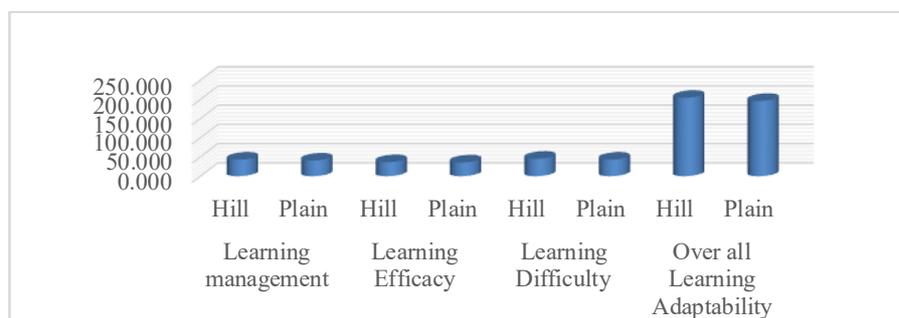


Fig. 4: Learning Adaptability of Hill and Plain residency Pupil Teachers

Table 5: Comparison of the Learning Adaptability between the Pupil Teachers from Government and Self-financed Institutions.

Learning Adaptability	Institution	N	Mean	S.D.	T	Sig. (2-tailed)
Learning management	Government	143	42.587	9.5049	1.198	NS
	Self-financed	257	41.455	8.7989		
Learning Efficacy	Government	143	35.685	9.4775	0.66	NS
	Self-financed	257	36.319	9.0441		
Learning Difficulty	Government	143	45.636	11.6041	1.854	NS
	Self-financed	257	43.304	12.3032		
Overall Learning Adaptability	Government	143	202.182	41.4395	0.838	NS
	Self-financed	257	198.852	36.1265		

Table 5 provides a comparison of the learning adaptability between pupil teachers from the government and self-financed institutions. The table presents various measures of learning adaptability, including learning management, learning efficacy, learning difficulty, and overall learning adaptability. There were 143 pupil teachers (Mean = 42.587 and S.D. 9.5049) from the government institutions and 257 pupil teachers (Mean = 41.455 and S.D. 8.7989) from self-financed institutions, who showed no significant difference in terms of learning management ($t = 1.198$). Both pupil teachers from government institutions (Mean = 35.685 and S.D. = 9.4775) and self-financed institutions (Mean = 36.319 and S.D. = 9.0441) also had no significant difference in terms of learning efficacy ($t = .660$). Moreover, there was no significant difference ($t = 1.854$) between pupil teachers from government institutions (Mean = 45.636 and S.D. 11.6041) and pupil teachers from self-financed institutions (Mean = 43.304 and S.D. = 12.3032) in terms of learning difficulty. Overall, there was no significant difference ($t = .838$) in terms of learning adaptability between the 143 pupil teachers from government institutions (with a mean = 202.182 and S.D. = 41.4395) and 257 pupil teachers from self-financed institutions (Mean = 198.852 and S.D. 36.1265). Therefore, it was found that there is no significant difference in the learning adaptability among pupil-teachers based on the type of institution. The results suggest that both government and self-financed institutions' pupil teachers exhibit similar levels of learning adaptability (Fig.5). The findings of Khichi S. (2016), Makwana and Kaji (2014), and Paramanik *et al.* (2014) support the findings of the study.

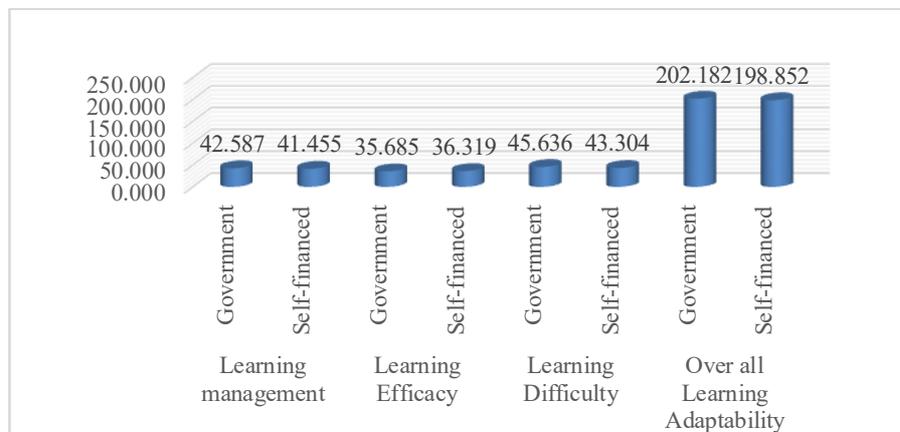


Fig. 5: Learning Adaptability of Pupil Teachers from Government and Self-financed Institutions

Discussion and Conclusion

It was observed that there is no significant difference in learning adaptability between male and female pupil teachers. Similarly, there were no notable differences found in different areas of learning adaptability between male and female pupil teachers. This indicates that both male and female pupil teachers possessed an equal level of learning adaptability. In the case of the academic stream, pupil teachers from the science stream possessed better learning adaptability than pupil teachers from the arts stream. In terms of learning management, learning efficiency, and overall adaptability dimensions of learning adaptability, pupil-teachers from the science stream showed better adaptability than pupil-teachers from the arts stream. In contrast, in terms of the learning difficulty dimension of learning adaptability, no significant differences were found between the arts and science pupil teachers. Based on the language, no significant difference was found in learning management, learning management, and overall learning adaptability between the pupil teachers from Hindi and English medium. Whereas, in the learning efficacy dimension of learning adaptability, a significant difference was found between Hindi and English medium pupil-teachers. English medium pupil teachers showed better learning efficacy than pupil teachers from the Hindi medium. Based on the residency, it was found that pupil-teachers from hill areas were better in learning management, learning efficacy, and overall learning adaptability than pupil-teachers from plain areas. Hill area pupil-teachers have better learning adaptability than pupil-teachers from plain areas. While in the learning efficiency dimension of learning adaptability, no significant difference was found between pupil teachers from hill and plain areas. Further, institution-wise, no notable difference was found in learning adaptability and its dimensions between pupil-teachers from government and private institutions. Pupil teachers from government and self-financed institutions possessed equal capabilities of learning adaptability.

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